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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/792,468	01/31/1997	CHIZU SHIMIZU	94049B	4039

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EXAMINER

HESS, DANIEL A

ART UNIT PAPER NUMBER

2876

DATE MAILED: 02/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/792,468

Applicant(s)

SHIMIZU ET AL.

Examiner

Daniel A Hess

Art Unit

2876

-- **Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --**
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 37-45, 48, 50 and 52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 37-45, 48, 50 and 52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 38.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2876

DETAILED ACTION

1. Acknowledgement is made of amendment received 12/23/2003, which has been placed in the file of record, and to which this is a response.

Remarks

2. The applicant's primary argument is that the cart of Collins is not fully portable in the sense that items are not purchased while the cart is on the move. Instead, the cart stops in order that a purchase can be made.

3. It is the examiner's position, however, that two obvious modifications, namely a battery in the place of a power cord, and RF communication instead of a cable to retrieve pricing information, permit the cart to be fully mobile.

4. The rejection that follows is similar to that of the previous action with these two differences.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

Art Unit: 2876

claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 37-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collins Jr. (US 5,149,947) in view of Swartz et al. (US 5,412,193).

Re claim 37: Collins shows a shopping cart comprising a cart body 50 (see figs. 1-5; column 3, lines 46-49) comprising a scanning terminal 44 (figs. 3-5; column 3 line 48 and lines 62+) which reads codes on individual items. There is further a commodity price retrieval system [102, 104] (figure 7, column 4, lines 30+). Collins further discloses (column 1, lines 34 and 50-55) that the portable scanning terminal includes a magnetic stripe reader that the customer can use to make credit card purchases.

Although Collins fails to show a system for handling prepaid cards which reads prepayment information from the prepaid card and subtracts the price of the individual commodity from the remainder amount, and registering this amount as a new remainder, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the credit card system of Collins with the notoriously old and well-known prepaid card system due to fact that both the credit card system of Collins and prepaid cards are commonly recognized in the art as being equivalent means of payment. In view of commonly known practices and procedures, it would have been obvious to one of ordinary skill in the art at the

Art Unit: 2876

time the invention was made to include such conventional practices and procedures into the teachings of Collins because one more payment option makes the user's experience that much more convenient. Note that debit cards are effectively a type of prepaid card. Note also Swartz (column 6, line 30) where a *mobile* checkout system *uses debit cards*, optionally.

Collins fails to show that the cart is able to act independent of external hookups or that it can process transactions anywhere.

Swartz shows (column 2, lines 25-55) a mobile supermarket checkout system that can be located anywhere and perform sales transactions, without having to be connected to a fixed external computer. In particular, Swartz shows a mobile checkout system with both RF communication (column 7, lines 65-67) and a rechargeable battery pack (column 4, lines 66-68).

In view of Swartz' teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known full mobile transaction capability for a supermarket checkout system as taught by Swartz into the teachings of Collins because as Swartz notes (column 1, lines 40-45) it is desirable to optimize space usage by avoiding fixed checkout stands which may often go unused. In Collins as modified by Swartz, RF communication would replace the wired communication with a host computer. A battery would replace the electrical connection.

Re claims 38 and 39: With a typical debit card, the system indicates insufficient funds by rejecting the transaction and the user can then either (i) use another card, or (ii) avoid using the card.

Re claims 40-42: Collins, Jr. has (column 3, line 67 to column 4, line 5) a receipt issuing section issues a receipt upon completion of the payment.

Art Unit: 2876

Re claims 43-45: Although Collins fails to disclose explicitly that there is a choice given of whether to receive a receipt or not, such means are notoriously old and well known in the art. Self serve gas stations have long given users the option of whether or not to receive a receipt. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known choice of whether to receive a receipt or not as is notoriously old and well known to one of ordinary skill in the art because if a person does not plan to use such a receipt for bookkeeping purposes, then it is a waste of paper.

8. Claims 48, 50 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collins as modified by Swartz, in further view of Ehrat (US 3,836,755). The teachings of Collins as modified by Swartz have been discussed above.

Re claim 48: Collins as modified by Swartz fails to show that the payment processor has a system whereby power can be turned on and off in response to an instruction received from an external management apparatus.

Ehrat notes (column 19, lines 58+) that a shutoff system is envisioned in a mobile self-service shopping cart whereby an individual cart can be controlled in response to an instruction received from a central management apparatus.

In view of Ehrat's teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include control of the cart from a central management apparatus as taught by Ehrat in the teachings of Collins as modified by Swartz because it is less time consuming and energy consuming to control the cart remotely. Although Ehrat doesn't specifically refer to cutting off power, that would have been obvious as well, in view of such

Art Unit: 2876

notorious old and well known art at the time of the invention as the television remote which can turn off a television remotely. Among many advantages for this, one is power savings, particularly useful in a device which is battery powered, as Collins modified by Swartz would be.

Re claims 50 and 52: Collins as modified by Swartz fails to show or teach a measuring section for measuring the total weight of commodities carried by the cart or an observing section to observe whether a change in weight accompanies a product reading operation, and an alarm generating section for generating an alarm if the change in weight does not accompany a read operation.

Ehrat shows a purchasing trolley 2, comprising a reading means 24, a goods basket 18, weighing scales 182, signaling means [SE₁, SE₂], a purchasing container electronic system 91 to determine whether the data were correctly read and whether the weight increase measured by the scales coincides within specific limits with the weight data on the data support or whether placing the article into the goods basket was accompanied by a weight increase, an error recognition and transmission circuit (column 6, line 13 to column 7, line 9). See abstract, lines 5-18; column 1, line 47 to column 2, line 21 and column 3, line 15 to column 4, line 63, and column 6, line 13 to column 7, line 62.

In view of Ehrat's teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known measuring section for measuring the total weight of commodities carried by the cart and observing section to observe whether a change in weight accompanies a product reading operation, and signaling means for signaling if the change in weight does not accompany a read operation in the teachings of Collins

Art Unit: 2876

as modified by Swartz because this system helps to ensure that each item that enters the cart will be paid for, and thus helps avoid theft, which is a risk when shopping is done automatically.

Response to Arguments

9. The examiner agrees with the applicant that the cart of Collins, Jr. is not fully mobile in the sense that it is parked during checkout. However, as is argued above, carts having both RF systems and batteries were known in the art. Swartz (US 5,412,193), as discussed above, has a mobile checkout system with both RF communication (column 7, lines 65-67) and a rechargeable battery pack (column 4, lines 66-68). These two elements can make the cart of Collins, Jr. fully mobile, as is the checkout system of Swartz.

10. The applicant has also argued that radio communication as per Swartz represents limited mobility, because of the limited range of radio. The examiner notes that nevertheless, the range of radio is certainly large enough for any store he can imagine.

11. Applicant's arguments regarding the use of debit vs. credit cards have been fully considered but they are not persuasive. The examiner believes it is well known in the art that in supermarkets it is common to permit the use of either type of card. While it is true that a Metro fare card system involves stationary terminals, there is no implicit reason that debit systems need to be stationary. Note Swartz (column 6, line 30) where a *mobile* checkout system *uses debit cards*, optionally.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

13. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel A Hess whose telephone number is (703) 305-3841. The examiner can normally be reached on 8:00 AM - 5:00 PM M-F.

15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G Lee can be reached on (703) 305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

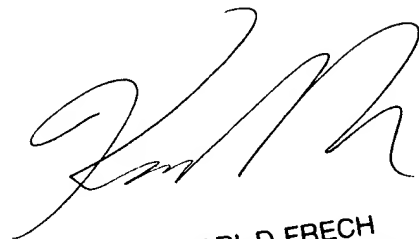
Art Unit: 2876

16. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



DH
February 21, 2003

Daniel A Hess
Examiner
Art Unit 2876



KARL D. FRECH
PRIMARY EXAMINER